Permit No.: IDG-131003

ANNUAL REPORT OF OPERATIONS FOR YEAR 2011 Idaho Aquaculture Permit

I. Facility Name: Dworshak National Fish Hatchery NPDES # IDG131003

Operator Name (*Permittee*): US Fish and Wildlife Service
Address: 4147 Ahsahka Road Ahsahka, ID 83520 Phone: 208-476-4591
Fax: 208-476-3252 E-Mail: peltz_larry@fws.gov
Owner Name: U.S. Army Corps of Engineers Phone: 509-527-7121

II. Annual Production: ***Harvestable weight produced in the year*** **415,844 pounds.**

III. Food Used: ***Number of pounds of food fed to the fish during the maximum month:***
61,249 pounds

IV. Noncompliance Summary:
Include description & dates of noncompliance, the reasons for such incident, and the steps taken to correct the problem. Attach additional pages, if necessary.

-The Federal Facilities Compliance Agreement was finalized with the EPA by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the Nez Perce Tribe. The proposed renovations, although based on funding, will serve to get the facility into compliance with the current NPDES permit.

V. Best Management Practices (BMP) Plan

BMP Plan has been reviewed this year. • **Yes**

BMP Plan fulfills the requirements set forth in the permit: • ***Yes***

Summarize changes in the BMP Plan since last annual report: Changes in the 2011 BMP have been completed to form the current 2012 BMP. Increasing the rearing densities, increasing flow of water to System I and II rearing units and stopping the direct discharge of waste to System III units have resulted in changes to BMP. The US Army Corps of Engineers have formed a rehabilitation team charged with renovating the facility to meet the current NPDES permit. FWS continues to review and modify fish culture, cleaning operations, and investigate our wastewater treatment and discharge options. Our BMP is a living document. Edits are made as BEST practices change to address the 2008 NOV.

VI. Land application of solids and/or irrigation with wastewater

Attach Maps of Application Sites. (Note: IDAPA 58.01.02.650 requires IDEQ approval for solids disposal on land.)

Date Location Acreage of Application Solids Applied Cubic Yards or Pounds

Wastewater Applied in Gallons - **Not Applicable**

Yearly Total 0 cubic yards/pounds

1C18 2/21/12

VII. Offline Settling Basin Discharge Frequency (generally)

24 hours/day 7 days/wk 12 months/year

VIII. Chemical Usage (including pesticides and drugs)

Chemical	Date or # of days used	**Maximum concentration in effluent (actual or estimated)**
		Concentrations are prior to mixing with total hatchery flow to respective discharge pipes:
Formalin	Prophylactic - Incubation Drip 76 days/yr	Maximum of 37 stacks (1667 ppm) @ 5gpm for 30 min drip
Formalin	Prophylactic Adult Holding 28 days/yr	Maximum of 3 ponds (167 ppm) 45 gal/1 hr
Formalin	Bath 11 days/yr	Maximum of 18 ponds 167 ppm 54 gal/1 hr for parasites
	Static Bath 125 days	Maximum of 3 kelt tanks @ 170 ppm discharged to settling pond.(NPT/UI)
AquaShade96	76 days/yr	15-25ppm diluted in formalin 1667ppm and water at 3-4 gpm – Estimated undetectable in discharge (0)
Chlorine	6 days/yr	100 gallons (1 day) disinfect reuse system and circulated in clarifiers/Sys I sump estimate no discharge/no flow. Water treated with sodium thiosulfate to pH 7 then discharged to solid ground away from drains, expect 0 discharge to river
Sodium Thiosulfate	Approx. 2 days (used to neutralize chlorine in fish hauling truck)	Water treated to pH 7 then discharged to solid ground away from drains, expect 0 discharge to river
Chloramine T	6 days to treat for cold water disease	10 mg/l, 1 hr bath, 1.8lbs/1hr in 5 coho raceway per day (9 lbs total). Estimate 0.1023 ppm discharged to settling pond at maximum concentration
Hydrogen Peroxide	1 day/yr	Used to disinfect clarifiers between stocking (April). Estimate no discharge to river due to reuse operations, dilution and breakdown in sunlight (approx 35 gallons)
Virkon	Used est. 365 days/yr Used solution 22 day/yr	0 discharge to river used as a spray on to disinfect nets, brushes, pond scrubber, foot baths, waders (Max concentration 10,000 ppm)

Sodium Chloride	12 days/yr	Maximum of 400 lbs/day of salt used as treatment for stress reduction and parasites as bath treatments (0.5% soln).
Sodium Bicarbonate	18 days	Used as a buffer for carbon dioxide anesthetic in adult fish handling. Max 20 lbs per day; estimate it is undetected in discharge due to dilution
Florfenicol (feed)	19 days	Maximum used 30 lbs per 1 day (248 lbs total/month) Estimate 0 discharged to river as it is ingested by fish or swept to settling pond as waste.
Oxygen	~31 days/yr	1.5 L/min 150 ppm estimate no detection in effluent
Ovadine (Iodophor disinfection bath)	15 days/yr	100 mg/L per female (max 160 females/day) And used at 200 ppm (bath) to disinfect equipment (100 % discharge to river); Used as a spray on to disinfect 64 nursery tanks. Expect undetectable discharge to river via clarifiers (system I)
Ovaplant (sGnRha)	1 days/year; fish generally spawn or are culled within 3 weeks of injection.	Max dose 5400 µ used in one day. Estimate 0 effluent discharged to river; carcasses taken to transfer station.
Erythromycin (injection)	3 days/yr 21 days prior to ~7 days/yr	629 ml injected; Estimate no detection in effluent discharged to river and carcasses taken to transfer station for disposal.
MS-222	~12 days/yr (64 hrs)	Estimate 100 ppm (800 gal vats) discharge
CO_2	~19 days/yr	Estimate max 1,000 ppm (800 gal vats) 100 % discharge to river
Propoly Aqua		400ml/day @ 130 ppm Estimate 100% discharge to river diluted in 800 gal vats

Chemical Logs available upon request (attached to file copy).

IX. Fish Importation, Transport, and Release Permits

Number of permits issued by Idaho Department of Fish and Game during the year: 2 **For which species?** Fall Chinook Salmon (Idaho Fishery Resource Office); Steelhead Kelts (Nez Perce Tribe)

X. Inspections and Repairs for production and wastewater treatment systems

Date Inspected	Date Repaired	Description of system inspected and/or repaired
08-16-2007	Issue is not resolved-towers are bypassed.	Media released from System I degassing towers.
Continued from 2008	ACOE conducted ARC Flash study; system renovation started in 2011; completion expected by spring 2012.	Work continues to be done to boilers and panels to repair components and reduce load and heat build-up recognized in 2008-2009.
Continued from 2009	FFCA completed in 2011; renovation pending funds	Old reuse system abandoned. System used for wastewater treatment; eliminated direct discharge to river.
Daily (when in use)	Maintenance Dept. inspects: Water intake screens, pumps, boilers, waste collection and containment structures.	Degassing towers installed on Raceway Bank A, went to serial reuse in half of Bank B; adjustments being made to get optimal nitrogen gas removal.
Monthly (when in use)	Continue working on discharge monitoring and NOV issues.	Production Dept. visually inspects: rearing units, screens, weirs, automatic feeders, chemical storage units, water flow.
Annually (prior to use)	October through December Energy efficient boiler installed 2011	Pumps, boilers, aeration chambers, digesters, settling ponds.

XI. Signature & Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure the qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: 

Title/Company: Department of the Interior
U.S. Fish and Wildlife Service
Dworshak National Fisheries Complex

Print Name: Larry Peltz ***Date:*** 1/13/12